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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,342	04/27/2000	S. CRAIG BALL	BALL1-2-3	4451

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EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

9

DATE MAILED: 04/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/530,342

Applicant(s)

BALL ET AL.

Examiner

John Hoffmann

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1731

DETAILED ACTION***Drawings***

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 21 December 2001 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohga EP464613.

Ohga discloses the invention at col. 5, line19 and figure 1. However, Ohga does not disclose the purity of the material. It would have been obvious to use silicon carbide that is as pure as technologically possible. It is well known that impurities in anything are generally not desirable. As to the tubular sections, one can arbitrarily designate the top half of the Ohga tube as a first section, and the lower half as a second section. It is noted the claims do not require that the sections be separable.

Art Unit: 1731

As to claims 10-11, it would have been obvious to have a low of loss as possible, because a high loss means loosing signal integrity and good integrity makes for happier customers.

Claims 12-13: Ohga fails to teach how thick the coating should be. IT would have been an obvious matter of routine experimentation to determine the optimal thickness of the coating. Alternately, it would have been obvious to make the coating as thin as possible (yet functional) because thinner coatings take less time and materials to create.

Claim 14: as indicated above, it would have been obvious to use as silicon carbide that is as pure as possible.

Claims 7-8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohga as applied to claim 6 above, and further in view of Fatzer, 392557.

Fatzer discloses that coating carbon bodies usually has poor adherence (col.2, lines 8-17.) Fatzer discloses a method of coating with SiC with good adherence (col. 4, lines 7-27). It would have been obvious to use the Fatzer method of creating the Ohga coated muffle - for the improved coating characteristics the Fatzer method has.

The cited passage of Fatzer requires the heating of the furnace (i.e. the muffle tube part of the furnace) to temperatures within the claimed range. Thus the limitations of claims 7-8 are met during the claimed "providing" step. It is noted that the claim does

Art Unit: 1731

not require that all of the furnace be heated to 1900C or that the temperature be maintained during the entire process.

Claim 12: Fatzer's method creates a layer 5 mils thick (col 6, lines 60-63). It would have been obvious to make the layer only 5 mils thick, because it would just take more time and effort to make an even thicker coating.

Response to Arguments

Applicant's arguments filed 31 December 2001 have been fully considered but they are not persuasive.

IT is argued that the cited references do not teach that multiple sections and low impurities yield a long service life. This is largely irrelevant. To show obviousness. The Office need not show the same advantages that Applicant has found. The fact that applicant has recognized another advantage which would flow naturally from the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The same applies to the arguments of claim 10-11: Applicant merely found another advantage of having high-purity coating. But high purity is an obvious modification. If applicant is arguing that something extra beyond high purity is required to obtain the low loss, then evidence to that effect should be supplied to the Office. Such evidence may be used in a future 35 USC 112 rejection.

Art Unit: 1731

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

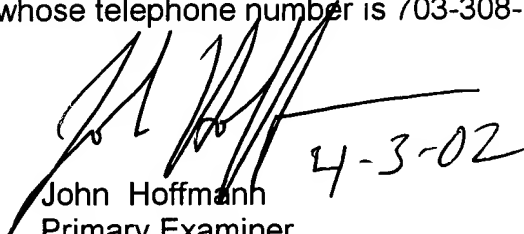
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday, Tuesday, Wednesday, Thursday, Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stan Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7115 for regular communications and 703-305-3599 for After Final communications.

Art Unit: 1731

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



John Hoffmann
Primary Examiner
Art Unit 1731

4-3-02

jmh
April 3, 2002